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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/762,643

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Scott Petersen

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EXAMINER

SEVERSON, RYAN J

ART UNIT

PAPER NUMBER

3731

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/762,643

Applicant(s)

PETERSEN, SCOTT

Examiner

Ryan Severson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-32 is/are pending in the application.
- 4a) Of the above claim(s) 3, 7, 12, 13, 18, 22, 23 and 26-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6, 8-11, 14-17, 19-21, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The corrections to the specification filed 06 June 2007 are acknowledged and accepted. Therefore, the objection to the specification is withdrawn.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 2, 5, 6, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ravenscroft et al. (6,007,558) in view of Whitcher et al. (6,273,901).**

4. Ravenscroft et al. reference discloses the filter (10) substantially as claimed, including: an apical head (12) and filter legs, with each filter leg including a joined end section (at 12) and a free end section (opposite 12). Each filter leg also includes a support member (32) coupled to an anchoring member (28) to secure the filter to the inner wall of the vessel. The filter also contains a plurality of filter tubes (26) with an inner lumen that receives the support members (see Figures 4-6). The filter tubes are joined at one end by a hub (see Figure 8, Ref. Numeral 38).

5. However, Ravenscroft et al. reference does not disclose the filter further comprising a landing pad coupled to the free end of each filter tube. Attention is drawn to Whitcher et al. reference, which teaches a landing pad (see Figure 8, Ref. Numeral 42A) may be used at the free end of a filter to spread the force applied at the tips of the filter over a greater area, thereby reducing the pressure on the contact or grasping points. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to attach the landing pads of Whitcher et al. reference to the filter tubes of Ravenscroft et al. reference to allow the hook (28) of the support member to pass through to spread the force applied at the tips of the filter over a greater area, thereby reducing the pressure on the contact or grasping points.

6. Regarding claims 2 and 11, the filter tubes of Ravenscroft et al. reference are formed of tubes (see Column 6, Lines 9-12).

7. Regarding claim 5, the anchoring member is interpreted to include a bending region, as the anchoring members are capable of moving from a substantially straight position inside of filter tube (26) to a bent position to grasp the vessel wall (see Column 6, Lines 16-21).

8. Regarding claim 6, the hub (38) of Ravenscroft et al. reference is an annular ring (see Figure 8).

9. **Claims 8, 9, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ravenscroft et al. (6,007,558) in view of Whitcher et al. (6,273,901) as applied to claims 1 and 10 above, and further in view of Sabbaghian et al. (5,147,379).** The combination of Ravenscroft et al. reference in view of Whitcher et al. reference discloses the filter (10) substantially as claimed. However, the combination does not disclose a retrieval means for retrieving the filter using a jugular approach. Attention is drawn to Sabbaghian et al. reference, which teaches the expandable filter may be retrieved using a jugular approach (see Column 5, Lines 48-49) to maintain minimal invasiveness thereby reducing recovery time. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a jugular retrieval means, as taught by Sabbaghian et al. reference, with the filter of Ravenscroft et al. reference, to maintain minimal invasiveness thereby reducing recovery time.

10. **Claims 16, 17, 20, 21, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ravenscroft et al. (6,007,558) in view of Sabbaghian et al. (5,147,379).** Ravenscroft et al. reference discloses the filter (10) substantially as claimed, including: an apical head (12) and filter legs, with each filter leg including a joined end section (at 12) and a free end section (opposite 12). Each filter leg also includes a support member (32) coupled to an anchoring member (28) to secure the filter to the inner wall of the vessel. The filter also contains a plurality of filter tubes (26) with an inner lumen that receives the support members (see Figures 4-6). The filter tubes are joined at one end by a hub (see Figure 8, Ref. Numeral 38).

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11. However, Ravenscroft et al. reference does not disclose a retrieval apparatus with an inner member to grasp the apical head, a middle tubular member to engage the hub, and an outer sheath for encapsulating the filter. Attention is drawn to Sabbaghian et al. reference, which teaches a retrieval device may have an inner member (5) to grasp the apical head, a middle tubular member (9) capable of engaging the hub, and an outer sheath (3) to encapsulate the filter to allow the filter to be retrieved or repositioned safely without causing damage to the interior of the vessel. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the retrieval device with inner member (5), middle tubular member (9), and outer sheath (3) of Sabbaghian et al. reference with the filter of Ravenscroft et al. reference to allow the filter to be retrieved or repositioned safely without causing damage to the interior of the vessel.

12. Regarding claim 16, the middle tubular member (9) is interpreted as being capable of engaging the hub. In Sabbaghian et al. reference, the middle tubular member is the assembly of tubular arms that clamp around the filter when they are compressed inside the outer sheath.

13. Regarding claim 17, the filter tubes of Ravenscroft et al. reference are formed of tubes (see Column 6, Lines 9-12).

14. Regarding claim 20, the anchoring member is interpreted to include a bending region, as the anchoring members are capable of moving from a substantially straight position inside of filter tube (26) to a bent position to grasp the vessel wall (see Column 6, Lines 16-21).

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15. Regarding claim 21, the hub (38) of Ravenscroft et al. reference is an annular ring (see Figure 8).

16. Regarding claim 25, Sabbaghian et al. reference discloses the expandable filter may be retrieved using a jugular approach (see Column 5, Lines 48-49)

17. **Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ravenscroft et al. (6,007,558) in view of Sabbaghian et al. (5,147,379) as applied to claim 16 above, and further in view of Whitcher et al. (6,273,901).** Ravenscroft et al. reference in view of Sabbaghian et al. reference discloses the filter (10) and retrieval assembly substantially as claimed as has been applied to claim 16.

18. However, the combination of Ravenscroft et al. and Sabbaghian et al. references does not disclose the filter further comprising a landing pad coupled to the free end of each filter tube. Attention is drawn to Whitcher et al. reference, which teaches a landing pad (see Figure 8, Ref. Numeral 42A) may be used at the free end of a filter to spread the force applied at the tips of the filter over a greater area, thereby reducing the pressure on the contact or grasping points. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to attach the landing pads of Whitcher et al. reference to the filter tubes of Ravenscroft et al. reference to allow the hook (28) of the support member to pass through to spread the force applied at the tips of the filter over a greater area, thereby reducing the pressure on the contact or grasping points.

19. **Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ravenscroft et al. (6,007,558) in view of Sabbaghian et al. (5,147,379) as applied to claim 16 above, and further in view of Hebert et al. (6,482,221).** Ravenscroft et al. reference in view of Sabbaghian et al. reference discloses the filter (10) and retrieval assembly substantially as claimed as has been applied to claim 16. However, the combination of Ravenscroft et al. and Sabbaghian et al. references does not disclose the inner member of the retrieval device of Sabbaghian et al. reference comprise a braided tubular member. Attention is drawn to Hebert et al. reference, which teaches a tubular member is made of a braided material (see Column 8, Lines 55-56) to provide varying flexibility to assist in navigation of tortuous lumens during implantation or removal of the device. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the inner member of the retrieval device of Sabbaghian et al. reference with a braided material, as taught by Hebert et al. reference, to provide varying flexibility to assist in navigation of tortuous lumens during implantation or removal of the device.

### ***Response to Arguments***

20. Applicant's arguments filed 06 June 2007 have been fully considered but they are not persuasive.

21. Regarding applicant's assertion that the landing pad is not rigidly or fixedly attached, the argument is irrelevant. Applicant has claimed no such attachment. Applicant merely claims that the pad be *coupled* to the filter tubes. The word coupled



merely means the two structures are fastened, linked, or associated together in a pair or pairs. By this meaning, the pad is certainly coupled to the filter. Further, applicant even acknowledges the pad of Whitcher et al. is *secured* to the strut (see page 11 of the arguments filed). Therefore, this argument is not persuasive.

22. Regarding applicant's assertion that the motivation (as used in claims 4 and 10 of the previous office action) is improper because the pad of Whitcher et al. delivers a surface treatment, the use of the pad to deliver such treatment does not preclude it from also performing the pressure distribution function. Applicant's attention is drawn to figures 2 and 7 of Whitcher et al. in which is shown a different embodiment of a pad (26) that delivers the same surface treatment (40, see figure 4) and wherein the pad prevents excessive penetration of the sharp portion of the filter (see column 3, lines 37-39). The prevention of penetration is due to the larger surface area of the pad that engages the vessel wall and distributes the expansion force of the filter to a greater vessel surface area than simply the penetration tip. This functions in the same manner as the pad (42A) and therefore the motivation provided previously is maintained. The idea of providing an increased surface area to distribute a specific force to reduce pressure (force applied over a defined area) is a basic principle recognizable to those skilled in the art. Therefore, this argument is also not persuasive.

23. Regarding applicant's assertion that the middle member of Sabbaghian et al. is not tubular, Examiner asserts it can be interpreted as tubular because it functions to center to filter along the longitudinal axis of the vessel, thereby making the filter and vessel coaxial (see column 3, lines 16-21). Since the middle member (9) is compressed

or expanded by the tubular member (as in figures 2 and 7) and functions to center the filter hub by surrounding the filter hub, the area defined by the arms (9) in which the hub rests is considered tubular. Therefore, this argument is also not persuasive.

### ***Conclusion***

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

25. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Severson whose telephone number is (571) 272-3142. The examiner can normally be reached on Monday - Friday 9:00 - 5:30.


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27. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

28. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

R.S.

Ryan Severson  
August 3, 2007

  
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SUPERVISORY PATENT EXAMINER  
8/6/07